1. A flywheel assembly for a power transmission system for transmitting engine torque [to a driven unit], comprising:

an elastic plate secured to a crankshaft to rotate therewith;

a flywheel body secured to said elastic plate and having an engaging [engageable] surface for engaging with a clutch disc; and

a reinforcing member for reinforcing said elastic plate at a portion of said elastic plate which is secured to said crankshaft;

said elastic plate having an axial rigidity in the range of 600 kg/mm to 2200 kg/mm so as to ensure transmission of engine torque through said flywheel assembly [to said driven unit] while decreasing noise produced by a bending vibration of said crankshaft;

wherein each of said elastic plate, said flywheel body and said reinforcing member comprises a first portion, said first portion of said flywheel body being placed axially between said first portions of said elastic plate and said reinforcing member, and said first portions of said elastic plate, said flywheel body and said reinforcing member defining clearances for allowing said first portion of said flywheel body to move axially between said first portions of said elastic plate and said reinforcing member.

2. A flywheel assembly as set forth in claim 1, wherein said axial rigidity is in the range of 600 kg/mm to 1700 kg/mm.

3. A flywheel assembly as set forth in claim 2, wherein an axial run-out of said [engageable] engaging surface when rotated by said crankshaft is no more than 0.1 mm.

4. A flywheel assembly according to claim 1, wherein said reinforcing member (4) and said elastic plate (2) are fastened to said crankshaft (1) by a fastening means (3), and said elastic plate is clamped between said crankshaft and said reinforcing member.

5. A flywheel assembly according to claim 4, wherein said elastic plate is circular and comprises an outer peripheral portion (*2b*) surrounding said first portion of said elastic plate, so that said first portion of said elastic plate is an inner portion of said elastic plate, said flywheel body comprises an outer peripheral portion (*5a*) which surrounds said first portion of said flywheel body, so that said first portion of said flywheel body is an inner portion of said flywheel body, said outer peripheral portions of said elastic plate and said flywheel body are fastened together by a second fastening means (6), said inner portion of said flywheel body comprises an inwardly facing inside cylindrical surface defining a central circular hole (*5b*), said reinforcing member comprises a cylindrical portion (*4a*) which is received in said circular hole (*5b*) of said flywheel body, and comprises an outwardly facing outside cylindrical surface surrounded by said inwardly facing cylindrical surface of said flywheel body, said first portion of said reinforcing member is in the form of an outward flange (*4b*), said first portion of said flywheel body is [slidably] mounted on said cylindrical portion of said reinforcing member [so that], and said cylindrical portion of said reinforcing member is sized to allow said first portion of said flywheel body [is] to slide axially [slidable] between said inner portion of said elastic plate and said outward flange of said reinforcing member.

6. A flywheel assembly according to claim 4, wherein said inner portion of said flywheel body comprises a first surface (5f) which is substantially parallel to said engaging [engageable] surface (5g) and which faces toward said elastic plate, and a second surface (5d) which is substantially parallel to said engaging ~~engageable~~ surface and which faces toward said outward flange of said reinforcing member, said inner portion of said elastic plate comprising an abutting surface confronting said first surface of said flywheel body and limiting an axial movement of said inner portion of said flywheel body [elastic plate] by abutting against said first surface of said flywheel body, said outward flange of said reinforcing member comprises an abutting surface confronting said second surface of said flywheel body and limiting the axial movement of said inner portion of said flywheel body by abutting against said second surface of said flywheel body, an axial distance between said first and second surfaces of said flywheel body is smaller than an axial distance between said abutting surfaces of said elastic member and said reinforcing member.

7. A flywheel assembly according to claim 6, wherein said second surface (5d) of said inner portion of said flywheel body is located axially between said first surface (5f) and said engaging [engageable] surface (5g) of said flywheel body.

8. A flywheel assembly for a power transmission system for transmitting engine torque [to a driven unit], comprising:

an elastic plate secured to a crankshaft to rotate therewith;

a flywheel body secured to said elastic plate and having an engaging [engageable] surface for engaging with a clutch

disc; and

a reinforcing member for reinforcing said elastic plate at a portion of said elastic plate which is secured to said crankshaft; and

said engaging [engageable] surface having an axial run-out which is equal to or less than 0.1 mm;

wherein each of said elastic plate, said flywheel body and said reinforcing member comprises a first portion, said first portion of said flywheel body being placed axially between said first portions of said elastic plate and said reinforcing member, and said first portions of said elastic plate, said flywheel body and said reinforcing member defining clearances for allowing said first portion of said flywheel body to move axially between said first portions of said elastic plate and said reinforcing member.

E2 cont

9. A flywheel assembly comprising:

a crankshaft [driving shaft] (1) for transmitting torque;

a circular elastic plate [member] (2) comprising an outer portion and an inner portion and extending radially inwardly from said outer portion to said inner portion, said inner portion of said elastic plate [member] being fastened to a shaft end of said crankshaft [driving shaft];

an annular flywheel body [member] (5) comprising an outer portion and an inner portion and extending radially inwardly from said outer portion to said inner portion of said flywheel body [member], said outer portion of said flywheel body [member] being fastened to said outer portion of said elastic plate [member], said inner portion of said flywheel body [member] comprising a central circular hole; and

a reinforcing member (4) comprising a cylindrical portion (4a) axially extending from a first member end to a

second member end, an inner portion extending radially inwardly from said first member end of said cylindrical portion, and an outward flange (4b) extending radially outwardly from said second member end of said cylindrical portion, said inner portion of said reinforcing member being fastened to said shaft end of said crankshaft [driving shaft], said cylindrical portion of said reinforcing member being fit in said circular hole of said flywheel body [member] with a clearance to form a loose fit;

wherein said inner portion of said elastic plate [member] is fixedly clamped between said shaft end of said crankshaft [driving shaft] and said inner portion of said reinforcing member, said inner portion of said flywheel body [member] is [loosely] fit over said cylindrical portion of said reinforcing member and located axially between said inner portion of said elastic plate [member] and said outward flange of said reinforcing member, said outward flange is axially spaced from said inner portion of said elastic plate [member] at an axial distance which allows axial movement of said inner portion of said flywheel body between said inner portion of said elastic plate [member] and said outward flange of said reinforcing member.

10. A flywheel assembly according to claim 9 [3], wherein said elastic plate [member] has an axial rigidity which is in the range of 600 kg/mm to 2200 kg/mm.

11. A flywheel assembly according to claim 9, wherein a wall thickness of said inner portion of said reinforcing member is greater than a wall thickness of each of said outward flange[s] of said reinforcing member and said inner portion of said elastic plate [member], said wall thickness of each of said

inner portion and said outward flange of said reinforcing member and said inner portion of said elastic plate [member] being a dimension measured in an axial direction parallel to an axis of said crankshaft [driving shaft].

E2 cont

12. A flywheel assembly according to claim 9, further comprising a first fastening means for fastening said outer portions of said elastic plate [member] and said flywheel body [member] together, and a second fastening means for fastening said inner portions of said elastic plate [member] and said reinforcing member to said shaft end of said crankshaft [driving shaft], each of said first and second fastening means comprises screw fasteners extending axially along an axis of said crankshaft [driving shaft].

13

16. A flywheel assembly for a power transmission system for transmitting engine torque, comprising:

a crankshaft;

an elastic plate comprising an inner portion secured to a shaft end of said crankshaft;

a flywheel body secured to said elastic plate and having an engaging surface for engaging with a clutch disc; and

E2

a reinforcing member for reinforcing said elastic plate at said inner portion of said elastic plate;

wherein said elastic plate has an axial rigidity in the range of 600 kg/mm to 2200 kg/mm so as to ensure transmission of engine torque through said flywheel assembly, while decreasing noise produced by a bending vibration of said crankshaft; and

wherein said elastic plate is clamped axially between said reinforcing member and said shaft end of said crankshaft.

28. A flywheel assembly as set forth in claim 16, wherein an axial run-out of said engaging surface when rotated by said crankshaft is no more than 0.1 mm.

31. A flywheel assembly for a power transmission system for transmitting engine torque, comprising:

a crankshaft;

an elastic plate comprising an inner portion secured to a shaft end of said crankshaft;

a flywheel body secured to said elastic plate and having an engaging surface for engaging with a clutch disc; and

a reinforcing member for reinforcing said elastic plate at said inner portion of said elastic plate;

wherein said engaging surface has an axial run-out which is no more than 0.1 mm; and

wherein said elastic plate is clamped axially between said reinforcing member and said shaft end of said crankshaft.